LAKE ST. CLAIR

FISHERIES REPORT

1984

Ontario

Ministry of Natural Resources

Hon. Vincent G. Kerrio
Minister

Mary Mogford
Deputy Minister

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Prepared by the
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A. RESUME OF 1984 CATCH STATISTICS

a. Commercial

In 1984, the total commercial fishery landing for the Ontario waters of Lake St. Clair was 170,800 pounds (Table 1). This landing was one half of the former 3-year average and the outcome of reduced trap net fishing activity in 1984 (2,526 net nights), particularly in the fall. Marginal economics appear to have been liable for a marked shift in fishing effort from trap nets to hookline gear.

Consistent with previous years, the two species, carp and catfish, dominated the 1984 landing, representing 70% of the total (Table 1). Maintenance of seine net fishing and a shift to increased hookline fishing provided the majority of the carp and catfish landings respectively.

In 1984, 4,500 pounds of yellow perch (15% of quota), 6,384 pounds of white bass (26% of quota) and 2,684 pounds of rock bass and black crappie (38% of quota) were landed under similar catch rates to those of 1983. With the mandatory landing of all coarse fish species being no longer imposed, substantial reductions in the landings of freshwater drum, suckers and white perch occurred in 1984. In 1984, 23% of the total commercial quota was landed with individual species harvests representing from 0% to 38% of their respective quotas.

Very limited commercial catch sampling was conducted due to limited trap net fishing activity and a liability concern.

b. Sport Fishery

In 1984, two angler surveys were conducted in the Canadian waters of Lake St. Clair:

1. Standard winter angler survey in selected areas of Lake St. Clair and the Lower Thames River

2. Nearshore summer angler survey in the north-east and east shore areas of Lake St. Clair. The standard on-water summer angler survey of the Canadian waters of Lake St. Clair was not conducted due to lack of funding.

1. Winter Angler Survey

The 1984 winter angler survey was conducted as in previous years (January to ice-out), surveying standard ice-covered Canadian waters of Lake St. Clair and the Lower Thames River.

As detailed in the 1983 Fisheries Report, only a minimal amount of ice fishing effort was expended in the standard survey areas in 1983 due to unsafe ice conditions. Excluding the 1983 survey year, winter angler effort in 1984 was the second lowest for the period 1977-1984. This was attributed to the short ice-fishing season (January 1 to February 12). Angler effort and residency for this 8-year period is presented in Table 4.

Although walleye C.U.E.'s were the second highest of the last 8-year period, overall walleye harvests of 12,676 kg (27,946 lb) were only slightly above average due to the overall reduction in total angler effort (Table 5). The 1982 year class predominated the walleye harvest (Table 8).

Angler effort for yellow perch was slightly reduced from former years with the second lowest C.U.E.'s in the last 8-year period. Yellow perch harvests of 6,459 kg (14,239 lb) were well below the 1977-1984 average (Table 6).

Angler effort for bluegill continued to remain at low levels compared to the peaks of effort observed in the 1979 and 1980 fisheries (Table 7).

The total estimated catch and harvest of all fish species in the 1984 winter angler fishery is presented in Table 2.

2. Nearshore Summer Angler Survey

A nearshore on-water angler survey was conducted in the east and north-east shore areas of Lake St. Clair from June 1 to July 31, 1984. The total estimated angler effort expended during this two-month period was 11,214 rod-hours (9,619 angler-hours) with 86% of this effort exerted by non-resident (Michigan) anglers. The total estimated catch and harvest of all fish species in the nearshore survey is presented in Table 3.

B. STATUS OF MAJOR SPECIES

Indices of abundance for the major young-of-the-year fish species were significantly greater in 1984 (Table 10). The index for yellow perch approached the strong index for the 1982 year class. Most notable was the large increase for white perch, as well as the large index for walleye. Although the index for alewife and emerald shiner was decreased over 1983, the indices for the young-of-the-year of most other forage species were good.

a. Walleye

In the mid-water index trawling program, the 1982 year class was overwhelmingly present (90%) in the spring and summer catches (Table 12). However, by the fall, this showing had dropped to only 39% of the sample and the 1984 year class became strongly evident. The absence of yearling fish (the weak 1983 year class) was also clearly seen.

In the fall pound net index netting program, both the strong 1982 and 1980 year classes figured well in the catch (Table 17 and 18). The overall catch per unit effort for walleye, as well as that of all species, was lower than previous years implicating just a poor index fishing year.

A higher than normal catch per unit effort for walleye was observed in the 1984 winter sport fishery (Table 5) and was attributed to the recruitment of the strong 1982 year class into the fishery (Table 8).

In overview, data from all of the above programs shows the 1980, 1982 and 1984 year classes as strong, the 1981 and 1983 year classes as weak, with overall indices of abundance remaining fairly high.

A total of 3,576 tag returns have been received to date from the 1980-1982 Thames River walleye tagging study for a cumulative return rate of 15% (Table 19). The distribution of reported returns by geographic area and fishery are consistent with previous years (Table 20).

b. Yellow Perch

In the index trawling program, seven age classes were present in samples throughout the season with the 1982 year class predominating more strongly in the summer and fall (Table 13). The 1980 and 1981 year classes were still fairly strongly present in the fall at 18% and 20% respectively, of the sample.

The 1980 and 1981 year classes of yellow perch also showed prominence in the fall index pound net catches and winter 1984 sport fishery catches (Table 9). Pound net indices of abundance for yellow perch have remained fairly stable over the last three years.

c. White Perch

Abundance indicators for white perch continued to increase in 1984 through most program sources (Table 16). Four year classes were represented in both trawl and pound net catch data with the 1982 year class predominating (Table 14 and 15).

d. White Bass

Although there has been a consistently good recruitment of young-of-the-year white bass over the past few years, older age groups have not been very evident in regular trawl catches. Of the limited samples obtained, the 1982 year class was the main age class present.

C. CURRENT PROGRAMS AND FUTURE PLANS

a. Lake Erie Fisheries Research Unit

1. Index Trawling

Mid-water and bottom index trawling will continue on a seasonal basis at all stations. Replicate bottom trawling during the summer and fall was begun in 1983 to determine if this gear might give a more reliable indication of the year class success of a number of species. However, for the past two seasons, the standard mid-water trawl has generally outfished the bottom trawl for all species excepting gizzard shad (Table 11). We plan to continue this replicate towing in 1985.

2. Habitat and Fish Community in Mitchell Bay, Lake St. Clair

A study of the habitat and fish community in the Mitchell Bay-St. Luke area of Lake St. Clair was initiated in 1983. Data on water quality and distribution and abundance of different life stages of various fishes and crustacean zooplankton were collected from May to October in 1983 and 1984. Although turbidity is high due to resuspension of sediments, water quality in the Bay is generally good. When compared with data collected a decade earlier at stations at the mouth of the Bay and at the St. Luke area, water quality parameters have not changed significantly except nitrate-nitrogen which has doubled in concentration.

The project was expanded in 1984 to include a study of abundance and distribution of macrophytes. These data and those collected on young fish and crustacean zooplankton will be analyzed in 1985. Sampling will also continue in 1985.

b. Lake St. Clair Fisheries Assessment Unit

1. Fall Pound Net Index Fishing

Index fishing of 6' pound nets set at 2 standard locations (Figure 1) from October to mid-November is again planned in 1985 to provide a continuum of fish community indices of abundance and biological statistics.

2. Commercial Fishery Catch Sampling Program

A commercial catch sampling program collecting catch, effort and biological data is planned in 1985. Similar to previous years, the focus will be catch sampling of the spring and fall pound net fishery.

3. Thames River Walleye Tagging

The field component of this project was finished in 1982. Completion of spawning stock size estimates and biological summary statistics is planned in 1985. On-going collation and interpretation of tag recovery data will also continue.

c. Chatham District Office

A wetland inventory survey following Federal/Provincial Wetland evaluation standards to assess the distribution and abundance of wetland habitat in Lake St. Clair was completed in 1984. A report is currently being completed.

Radio tagging of walleye in the Thames River is planned in the spring of 1986. This project is being implemented to observe the movements of spawning walleye and to locate spawning grounds in the Thames River.

D. MANAGEMENT AND CHANGES IN REGULATIONS

A review of yield estimates and allocations for the Ontario waters of Lake St. Clair is currently being conducted. This process is expected to be completed in the summer with revisions to be implemented in the fall of 1985. Analysis of historic and recent commercial fishery effort, catch and catch per unit effort and index fishing indices of abundance data form the major part of this exercise.

a. Commercial Fishery

In 1984, the Ontario Ministry of Natural Resources implemented a program to modernize the management of Ontario's commercial fishery. The emphasis of this program was to effect direct control over harvesting through quota management with a concomitant reduction in the amount of indirect regulatory control, to regulate "new" entrants into the fishery and to establish licence revival criteria.

Aside from the keeping of additional sale receipt records and some restrictions on the buying and selling of quotas, this program will impose little change to the Lake St. Clair commercial fishery.

b. Sport Fishery

The introduction of a non-resident muskellunge or lake trout tag was the only change that occurred in the Lake St. Clair sport fishery regulations in 1984.

A Ministry of Natural Resources working group is currently reviewing Ontario's muskellunge regulations. It will seek to review available data on muskellunge in Ontario, identify management goals for muskellunge, define problems facing managers and outline alternatives for management with special attention to regulatory measures. Changes, if any, may be implemented as soon as 1986.

Table 1. Lake St. Clair commercial fishery quotas and landings[1] for 1980, 1981, 1982, 1983 and 1984 by species in pounds.

Species	Quota	1980	1981	1982	1983	1984
Bowfin	--	4,700	7,200	5,000	16,000	13,800
Bullheads	10,000	2,200	4,000	1,000	1,700	600
Carp	330,000	33,700	128,500	145,900	41,300	61,500
Catfish	75,000[4]	14,600	92,500	69,700	66,100	59,500
Freshwater Drum	--	10,500	30,400	51,700	33,400	4,000
Northern Pike	9,000	2,800	4,900	3,100	4,900	2,700
Rock Bass/Crappie	7,000	1,800	2,500	3,800	5,900	2,700
Sturgeon	11,000	0	0	0	0	0
Suckers	100,000	11,800	42,300	42,100	51,200	13,300
White Bass	25,000	3,800	18,700	19,300	11,500	6,400
White Perch	--	0	0	288	2,300	400
Yellow Perch	30,000	500	2,500	5,200	9,300	4,500
Mixed[2]	--	600	15,100	500	1,600	1,500
TOTAL[3]	597,000	87,000	348,700	347,100	245,200	170,800

1 - L.S.C.F.A.U. Data - from C.F. Monthly Reports, Jan. - Dec.

2 - Includes: Bowfin, Freshwater Drum, Garpike, Gizzard Shad, Suckers, White Perch. (When this value is large, it is predominantly Freshwater Drum and Suckers.)

3 - May differ from column value sum due to rounding.

4 - An additional quota was allocated in 1981 - 1984.

Table 2. Total estimated catch and harvest of all fish species in the Lake St. Clair winter angler fishery (January to February), 1984.

Species	Catch (Numbers)	Harvest (Numbers)
Walleye	35003	31051
Yellow Perch	98399	71193
Bluegill	11659	6562
Pumpkinseed	5946	2929
Black Crappie	262	255
Rock Bass	564	205
White Bass	8568	7126
Freshwater Drum	4392	1436
Channel Catfish	3939	2905
Brown Bullhead	45	45
Silver Chub	67	16
Carp	199	98
Redhorse Suckers	17	9
White Sucker	159	66
Quillback Carpsucker	16	7
Northern Pike	37	37
Smallmouth Bass	217	9
Largemouth Bass	424	27
Bowfin	160	84
White Perch	209	201

Note: Standard summer angler survey not conducted in 1984.

Table 3. Total estimated catch and harvest of all fish species in the Lake St. Clair nearshore angler fishery (June 1 to July 31), 1984.

Species	Catch (Numbers)	Harvest (Numbers)
Bluegill	7083	4794
Pumpkinseed	266	266
Smallmouth Bass	613	146
Largemouth Bass	2168	476
Black Crappie	769	620
Yellow Perch	1350	862
Rock Bass	940	754
White Bass	14	14
White Perch	16	16
Channel Catfish	155	115
Carp	24	0
Redhorse Suckers	41	5
White Sucker	6	6
Northern Pike	119	61
Bowfin	52	12
Walleye	295	209
Freshwater Drum	291	64

Table 4. Total estimated angler effort and angler residency in the winter angler fishery, January to March, 1977-1984.

Year	Angler Effort		Ontario Residency (%)
	Angler Hours	Rod Hours	
1977	82260	136061	56
1978	154801	279847	63
1979	186951	296795	58
1980	181775	312869	63
1981	138039	236533	62
1982	158721	274157	55
*			
1984	119819	204486	71

* Winter 1983 - unsafe ice conditions; formal survey not conducted; minimal ice-fishing activity.

Table 5. Effort, harvest and C.U.E. data for Walleye in the winter angler fishery, January to March, 1977-1984.

Year	Walleye Contribution to Fishery		Harvest			C.U.E. number of fish/ rod hour	
	% of Total Angler Effort	Walleye Angler Effort (rod hours)	Numbers	kg.	(lb.)	kept	caught
1977	53	75001	11700	9260	20402	0.154	0.155
1978	39	82809	10952	10440	22992	0.094	0.108
1979	73	223040	61297	16980	37391	0.272	0.361
1980	50	167186	20303	12350	27206	0.120	0.127
1981	52	146434	8933	6888	15186	0.062	0.065
1982	62	195237	30038	19075	42053	0.153	0.160
*							
1984	58	126256	31051	12676	27946	0.241	0.272

* Winter 1983 - unsafe ice conditions; formal survey not conducted; minimal ice-fishing activity.

Table 6. Effort, harvest and C.U.E. data for Yellow perch in the winter angler fishery, January to March, 1977-1984.

Year	Y. Perch Contribution to Fishery		Harvest			C.U.E. number of fish/ rod hour	
	% of Total Angler Effort	Y. Perch Angler Effort (rod hours)	numbers	kg.	(lb.)	kept	caught
1977	43	61504	58084	6070	13369	0.893	1.226
1978	61	143855	141213	14100	31067	0.770	0.877
1979	23	69967	61517	5590	12303	0.832	1.291
1980	45	149246	197368	12540	27631	1.235	1.812
1981	45	126737	143055	12978	28611	1.077	1.380
1982	30	95053	99315	13514	29794	1.039	1.290
*							
1984	40	87788	71193	6459	14239	0.821	1.114

* Winter 1983 - unsafe ice conditions; formal survey not conducted; minimal ice-fishing activity.

Table 7. Effort, harvest and C.U.E. data for Bluegill in the winter angler fishery, January to March, 1977-1984.

Year	Bluegill Contribution to Fishery		Harvest			C.U.E. number of fish/ rod hour	
	% of Total Angler Effort	Bluegill Angler Effort (rod hours)	numbers	kg.	(lb.)	kept	caught
1977	3.0	4237	11789	1711	3772	2.172	2.851
1978	0.1	372	202	76	168	0.253	0.253
1979	2.9	8941	22859	3422	7543	2.086	2.725
1980	3.8	12605	17072	2942	6487	1.060	1.310
1981	0.9	2620	3360	305	672	1.324	1.818
1982	0.8	2521	3662	506	1099	1.072	1.399
*							
1984	0.9	2032	6562	893	1969	1.836	3.413

* Winter 1983 - unsafe ice conditions; formal survey not conducted; minimal ice-fishing activity.

Table 8. Age group composition (%), mean length, mean round weight** and mean age of walleye in the angler harvest from the Canadian waters of Lake St. Clair obtained through the on-ice angler survey catch samples, January to March, 1977-1984.

Year	AGE GROUP											Mean Length (cm)		Mean Round Weight		Mean Age	Sample Size (n)
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	Fork	Total	kg	(lb)		
1977		24	28	1	7	7	19	14				42.6	45.2	0.8	1.8	4.7	332
1978	4	0	8	32	2	11	23	21				45.7	48.4	1.0	2.2	5.7	[illegible]
1979	1	96	0	0	1	0	1	1				30.3	32.1	0.3	0.7	2.2	395
1980		1	69	1	5	7	5	4	8			39.4	41.8	0.6	1.3	4.2	142
1981		6	7	63	1	4	7	2	1	6	1	41.9	44.4	0.8	1.7	4.7	82
1982		30	16	1	41	3	1	4	2	2	1	38.8	41.1	0.6	1.4	4.1	230
*																	
1984	1	62	9	16	6	4	1	1	1			33.6	35.6	0.4	0.9	2.9	171

* Winter 1983 - unsafe ice conditions; formal survey not conducted; minimal ice-fishing activity.

** Length-weight regression equations used from Lake St. Clair fall pound net data.

Table 9. Age group composition (%), mean length, mean round weight** and mean age of yellow perch in the angler harvest from the Canadian waters of Lake St. Clair obtained through the on-ice angler survey catch samples, January to March, 1977-1984.

Year	AGE GROUP											Mean Length (cm)		Mean Round Weight		Mean Age	Sample Size (n)
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	Fork	Total	kg	(lb)		
1977		1	16	13	32	18	16	2	1	1		20.0	21.0	0.10	0.23	5.2	1848
1978			39	28	8	11	7	5	2			19.8	20.8	0.10	0.22	4.4	535
1979		6	4	51	21	7	7	2	2			19.2	20.2	0.09	0.20	4.5	372
1980		2	69	7	14	5	2	1				16.8	17.6	0.06	0.14	3.6	492
1981		1	19	55	14	5	5	1	1			18.5	19.4	0.08	0.18	4.3	184
1982		6	10	19	51	7	6	7				21.0	22.0	0.12	0.26	4.6	335
*																	
1984		3	24	28	14	15	13	1	1	1		19.7	20.7	0.10	0.22	4.7	271

* Winter 1983 - unsafe ice conditions; formal survey not conducted; minimal ice-fishing activity.

** Length-weight regression equations used from Lake St. Clair fall pound net data.

Table 10. Comparative indices of abundance (number per trawling hour) of selected young-of-the-year fish species from index fishing (mid-water trawling) at regular and extra stations in Lake St. Clair, 1968-1984.

Year	Walleye	Yellow perch	Rainbow smelt	White bass	Freshwater drum	White perch	Channel catfish	Alewife	Gizzard shad	Spottail shiner	Troutperch	Effort (min.)
1968		16	20									40
1969	5	327	abundant		103							150
1970	21	3288	9	92								100
1971		1	3	8				529				100
1972	11	132	5	7								160
1973				4				2370				100
1974	22	55	1	2	1			15				100
1975		50	4					10	5			50
1976			9	37	1			2748				100
1977	89	170	290	78	10			195				100
1978		121	2082	3				7143	1542		115	100
1979	3	24	399							9		100
1980	58	724	1411	19	289	21	8	877	101			100
1981		929	14	74	113	235						100
1982	76	1709	2743	169	75	67						100
1983		68	257	143		39		2197	174	174	176	100
1984	95	1611	868	134	51	1370		458	755	32	1015	100

Table 11. Indices of abundance (number per trawling hour) of selected young-of-the-year fish species from index fishing (bottom and midwater trawling) in Lake St. Clair, summer and fall 1984. Total effort was 95 minutes for bottom trawl and 100 minutes for midwater trawl.

Species	Bottom Trawl			Midwater Trawl			Grand Total
	Summer	Fall	Total	Summer	Fall	Total	
Walleye	10	33	21	125	66	95	59
Yellow perch	416	169	299	2431	791	1611	972
Rainbow smelt	260	404	328	95	820	868	395
White bass	217	24	126	220	47	134	130
Freshwater drum	8	4	6	52	49	51	29
White perch	276	1328	774	416	2323	1370	1080
Alewife	36	553	281	500	415	458	372
Gizzard shad	23	2703	1292	221	1288	755	1016
Spottail shiner	13	--	7	17	47	32	20
Trout perch	475	--	250	2030	--	1015	643
Smallmouth bass							
Rock bass							

Table 12. Seasonal year-class composition, average total length (cm) and average weight (g) of walleye (sexes combined) from index trawling in Lake St. Clair, 1984.

Year Class / Age	1984 0	1983 1	1982 2	1981 3	1980 4	1979 5	1978 6	1975 9	n
Spring									
No. of fish		1	102	1	7	1	1		113
% comp.		0.9	90.3	0.9	6.1	0.9	0.9		100
Length		28.0	29.9	42.2	41.4	46.8	45.3		
Weight		159.0	209.5	541.0	590.6	912.0	752.0		
Summer									
No. of fish		1	53	1	1				56
% comp.		1.8	94.6	1.8	1.8				100
Length		27.1	30.1	38.8	39.5				
Weight		147.0	213.2	450.0	494.0				
Fall									
No. of fish	56		41	4		1	1	1	104
% comp.	53.8		39.4	3.8		1.0	1.0	1.0	100
Length	16.9		33.9	35.0		41.4	46.7	59.5	
Weight	38.9		335.9	353.5		517.0	829.0	1808.0	
Combined									
No. of fish	56	2	196	6	8	2	2	1	273
% comp.	20.5	0.7	71.8	2.3	2.9	0.7	0.7	0.4	100

Table 13. Seasonal year-class composition, average total length (cm) and average weight (g) of yellow perch (sexes combined) from index trawling in Lake St. Clair, 1984.

Year Class Age	1984 0	1983 1	1982 2	1981 3	1980 4	1979 5	1978 6	1977 7	1976 8	n
Spring										
No. of fish		1	20	15	18	5	5	4		68
% comp.		1.5	29.4	22.0	26.4	7.4	7.4	5.9		100
Length		8.4	12.3	16.6	17.5	19.3	21.6	21.4		
Weight		5.0	18.0	49.6	57.4	79.2	113.0	123.3		
Summer										
No. of fish		1	38	14	10	10	3	1		77
% comp.		1.3	49.3	18.2	13.0	13.0	3.9	1.3		100
Length		10.3	12.9	16.8	17.5	20.0	24.9	22.5		
Weight		16.0	25.9	57.1	66.8	98.0	210.7	135.0		
Fall										
No. of fish		13	48	24	22	4	5	1	3	120
% comp.		10.8	40.1	20.0	18.3	3.3	4.2	0.8	2.5	100
Length		12.3	14.2	17.6	19.0	19.4	19.2	21.0	24.6	
Weight		20.2	33.1	64.5	81.8	93.8	121.4	101.0	175.7	
Combined										
No. of fish		15	106	53	50	19	13	6	3	265
% comp.		5.7	40.0	20.0	18.8	7.2	4.9	2.3	1.1	100

Table 14. Seasonal year-class composition, average total length (cm) and average weight (g) of white perch (sexes combined) from index trawling in Lake St. Clair, 1984.

Year Class Age	1983 1	1982 2	1981 3	1980 4	n
Spring					
No. of fish		1	8	3	12
% comp.		8.3	66.7	25.0	100
Length		18.0	18.9	20.7	
Weight		101.0	105.8	153.3	
Summer					
No. of fish		31	18	1	50
% comp.		62.0	36.0	2.0	100
Length		15.6	18.8	20.0	
Weight		57.6	107.7	130.0	
Fall					
No. of fish	1	27	9		37
% comp.	2.7	73.0	24.3		100
Length	14.3	18.0	21.2		
Weight	39.0	92.9	159.1		
Combined					
No. of fish	1	59	35	4	99
% comp.	1.0	59.6	35.4	4.0	100

Table 15. Year-class composition and average total length (cm) of white perch (sexes combined) from the fall pound net index program, Lake St. Clair, Oct. 2 - Nov. 14, 1984.

Year Class Age	1983 1	1982 2	1981 3	1980 4	n
No. of fish	25	251	92	15	383
% comp.	6.5	65.5	24.0	3.9	
Length	17.3	18.7	22.4	24.8	

Table 16. White perch catch-per-unit-effort statistics in Lake St. Clair from standard fisheries programs, 1977-1984.

Year/Program	Fall Index (number caught/ net night)	Mid-Water Trawling (number of YOY/ trawling hour)	Summer Angler Survey (number caught/ rod-hour)*	Winter Angler Survey (number caught/ rod-hour)*
1977	0.014			
1978	0.046			
1979	--			
1980	0.062	21		
1981	0.935	235		
1982	1.267	67	0.014	
1983	3.976	39	0.118	
1984	4.538	1370	**	0.001

* Number caught = numbers of kept and released fish for all anglers.

** Standard summer angler survey not conducted in 1984.

Table 17. Age group composition (%) of walleye at the standard south-east shore index site, Lake St. Clair, Fall 1970-1984.

	AGE GROUP											
Year	O	I	II	III	IV	V	VI	VII	VIII	IX	X	XI
1970	1	46	17	2	6	24	2	1	1			
1971		36	18	10	13	8	10	5				
1972		12	42	15	7	9	11	3	1			
1973		19	4	19	36	5	6	6	4			
1974		1	16	7	28	20	12	7	5	3	1	
1975		5	1	10	30	43	5	1	3	3		
1976		1	11	1	22	9	29	13	9	0	3	1
1977			4	33	4	24	29	4	1			
1978		32	0	9	31	11	11	6	1			
1979		2	54	1	6	11	12	4	10	1		
1980	1	4	3	63	1	2	8	8	8	3		
1981		14	13	6	51	1	3	4	6	1	1	
1982		1	23	18	9	42	1	2	2	1	1	
1983		30	6	35	7	7	9	2	1	2	1	
1984			47	6	18	10	9	7	1	2		

Table 18. Walleye C.U.E. by age group (numbers/net night) at the standard south-east shore index site, Lake St. Clair, Fall, 1970-1984.

Age Group	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	Age Group
0	0.05							0.03								0
I	1.67	0.40	0.37	0.36	0.06	0.11	0.04	0.00	3.12	0.22	0.62	1.08	0.09	4.05		I
II	0.60	0.20	1.22	0.07	0.99	0.03	0.41	0.30	0.00	6.78	0.27	1.01	2.02	0.83	2.06	II
III	0.07	0.09	0.45	0.36	0.44	0.20	0.05	2.32	0.85	0.08	7.06	0.43	1.60	4.67	0.26	III
IV	0.21	0.13	0.22	0.67	1.78	0.63	0.82	0.30	2.97	0.73	0.21	3.92	0.85	1.00	0.81	IV
V	0.86	0.09	0.29	0.10	1.25	0.91	0.33	1.69	1.03	1.37	0.32	0.10	3.76	0.90	0.44	V
VI	0.07	0.11	0.33	0.12	0.72	0.11	1.09	2.05	1.06	1.47	1.16	0.26	0.11	1.26	0.39	VI
VII	0.02	0.06	0.08	0.12	0.46	0.03	0.50	0.26	0.54	0.50	1.46	0.35	0.16	0.31	0.32	VII
VIII	0.02		0.02	0.07	0.29	0.06	0.33	0.08	0.08	1.20	0.98	0.49	0.16	0.13	0.02	VIII
IX					0.22	0.06		0.03		0.15	0.26	0.05	0.11	0.21	0.09	IX
X					0.06		0.13			0.04		0.08	0.07			X
XI							0.04							0.06		XI
XII													0.02			XII
Total No. of Fish	152	88	146	78	220	75	101	276	419	576	497	278	402	563	190	
Effort[1]	43	82	49	42.0	35.1	35.1	27.1	39.0	44.0	45.9	40.2	35.8	44.9	42.0	43.1	
C.U.E. (all ages)	3.53	1.12	3.02	1.83	6.27	2.14	3.73	7.08	9.53	12.55	12.36	7.77	8.95	13.4	4.4	

[1] Effort = Net nights (24 hour sets)

Table 19. Summary of numbers of tagged walleye released and recovered by year.

Year of Release	Number of Tagged Walleye Released	Number of Recoveries by Year of Release and Year of Recovery. Percent Returned in Parenthesis					Total Recoveries All Years
		1980	1981	1982	1983	1984	
1980	8494	592 (7%)	410 (5%)	310 (4%)	77 (1%)	30 (.4%)	1419 (17%)
1981	6670		397 (6%)	479 (7%)	104 (2%)	43 (.6%)	1023 (15%)
1982	8027			771 (10%)	287 (4%)	76 (1%)	1134 (14%)
All Years	23191						3576 (15%)

Table 20. Summary of the 1980-1984 Thames River walleye tag returns by geographic location and fishery from the 1980-1982 tagging.

Fishery/ Location	Lake Huron	St. Clair River	L. St. Clair	Detroit River	Lake Erie	Totals #'s	%
Sport #'s	54	1045	1243	220	40	2602	73
Commercial #'s	766	0	192*	0	16	974	27
Totals #'s	820	1045	1435	220	56	3576	
%'s	23	29	40	6	2		

* Released fish

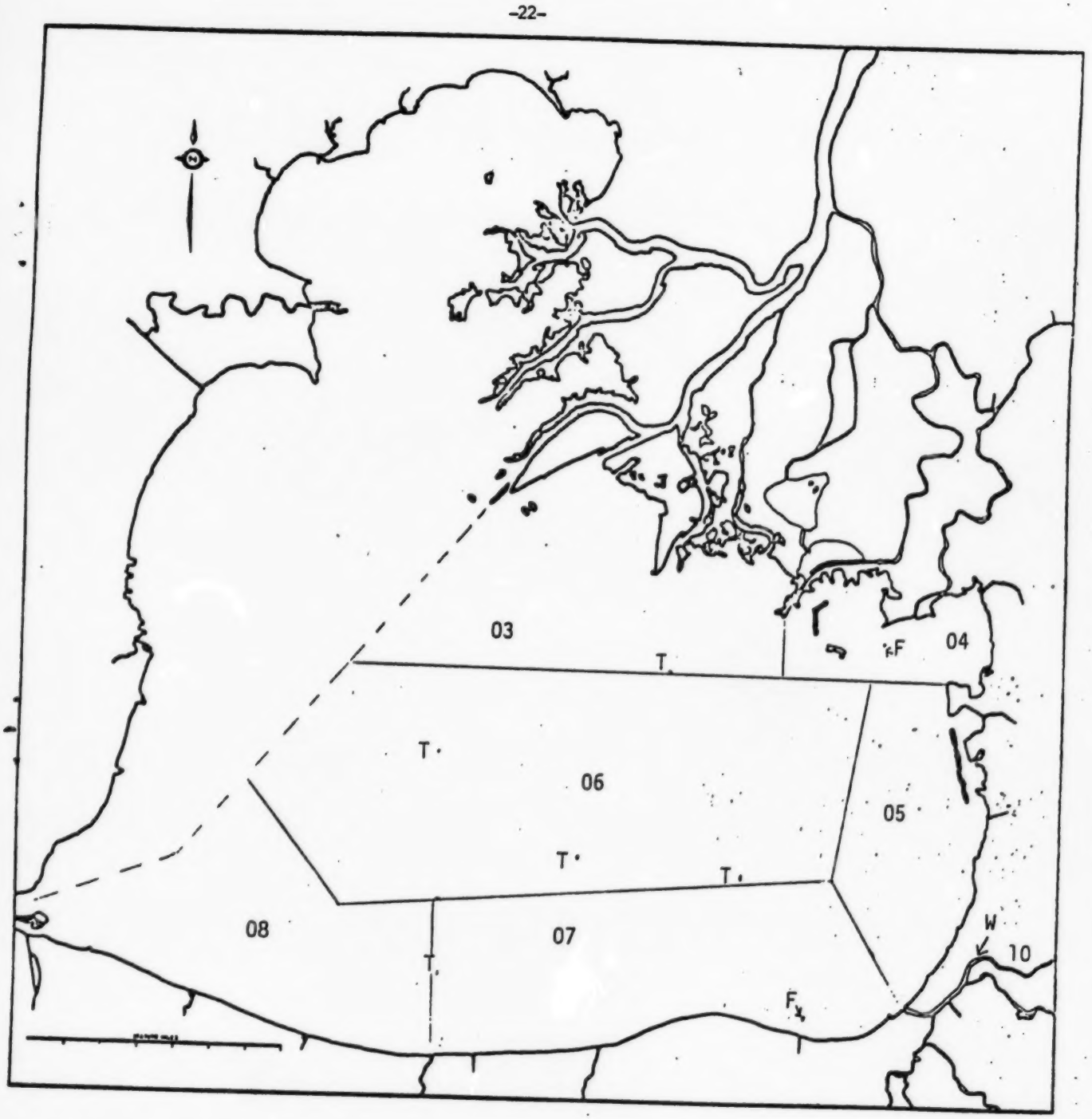

Figure 1. Sampling station locations

1. Winter Creel Census Areas 04, 05, 07, 10
2. Summer Creel Census Areas 03, 04, 05, 06, 07, 08
3. Fall Index Sites F
4. Walleye Tagging Site W
5. Index Trawling (Lake Erie Fisheries Research Station) T